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SEPTORIA LEAF SPOT OF CHRYSANTHEMUM

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Septoria leaf spot disease of Chrysanthemum spp. has a wide geographical distribution, including the Asian and European continents as well as the western hemisphere. It has been known in the United States since 1891 and has been reported from most chrysanthemum-growing areas of this country. Chrysanthemum is one of the most important ornamental flower crops grown. It is used and enjoyed for the most part as cut flowers. The spotting of the foliage detracts from the quality and salability of the cut flowers and tends to reduce the quantity and quality of the blooms (3).

Leaf spot of Chrysanthemum is caused by two species of Septoria, S. obesa Syd. and S. chrysanthemella Sacc., with the former being more prevalent in Florida (1, 2). The fungus grows best with mild temperatures (68-89 F) and high humidity or moisture. It is disseminated by the production of many small pycnidia containing countless numbers of spores which are splashed about onto uninfected plants, particularly during rainy periods or during the watering process under greenhouse cultivation. Entrance of the fungus is gained through the stomata of leaves. The fungus can overwinter in leaf debris up to 4 months, producing spores which can serve as a source of infection for healthy plants (2).

SYMPTOMS. Leaf spots caused by Septoria are irregular, dark brown to black, sometimes surrounded by a narrow yellow halo (Fig. 1). The spots are usually initiated on the lower leaves and the disease progresses upward on the plant. The leaf spots vary in size from very small to large, covering one-third of the leaf surface. As the spots increase in size and become more abundant, the affected leaves turn yellow, die and persist on the plant (1).

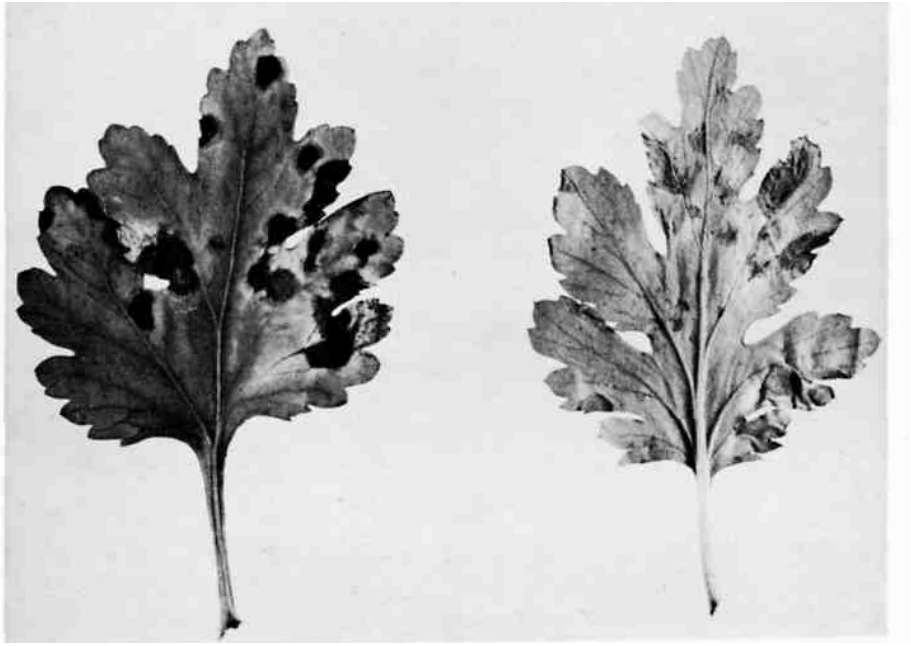

Fig. 1. Septoria leaf spot of Chrysanthemum, caused by Septoria obesa. showing distinct, irregular, dark brown leaf spots on the upper-surface (left), and light brown spots on the undersurface (right).

CONTROL. The most effective control of this leaf spot is accomplished by weekly applications of fungicidal sprays such as zineb (1/2 lb 75% WP) plus captan (3/4 lb 50% WP), or zineb alone (1 lb 75% WP) in 100 gal water. During rainy weather or after disease symptoms are evident, the spray applications should be made daily. Since the lower leaves are initial sites of infection, thorough coverage of all leaves with the fungicide, whether a dust or spray, must be made in order to ensure adequate protection. Sanitation measures also aid in controlling this disease by the removal of infected leaves and plants during and after the crop season (1).

Literature Cited

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